[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-2458; Directorate Identifier 2014-NM-122-AD; Amendment 39-18468; AD 2016-07-23]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Airbus Model A318, A319, A320, and A321 series airplanes. This AD was prompted by reports of in-flight loss of fixed and hinged main landing gear (MLG) fairings, and reports of post-modification MLG fixed fairing assemblies that have wear and corrosion. This AD requires, for certain airplanes, repetitive replacements of the fixed fairing upper and lower attachment studs of both left-hand (LH) and the right-hand (RH) MLG; and repetitive inspections for corrosion, wear, fatigue cracking, and loose studs of each forward stud assembly of the fixed fairing door upper and lower forward attachment of both LH and RH MLG; and replacement if necessary. This AD also provides an optional terminating modification for the repetitive replacements of the fixed fairing upper and lower attachment studs. We are issuing this AD to prevent in-flight detachment of an MLG fixed fairing and consequent damage to the airplane.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2015-2458; or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this final rule, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airwortheas@airbus.com; Internet http://www.airbus.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2015-2458.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Model A318, A319, A320, and A321 series airplanes. The NPRM published in the Federal Register on July 8, 2015 (80 FR 38992) ("the NPRM"). The NPRM was prompted by reports of in-flight loss of fixed and hinged MLG fairings, and reports of post-modification MLG fixed fairing assemblies that have wear and corrosion. The NPRM proposed to require, for certain airplanes, repetitive replacements of the fixed fairing upper and lower attachment studs of both the LH and RH MLG; and repetitive inspections for corrosion, wear, fatigue cracking, and loose studs of each forward stud assembly of the fixed fairing door upper and lower forward attachment of both LH and RH MLG; and replacement if necessary. The NPRM also proposed an optional terminating modification for the repetitive replacements of the fixed fairing upper and lower attachment studs. We are issuing this AD to prevent in-flight detachment of an MLG fixed fairing and consequent damage to the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness

Directive 2015-0001R1, dated January 15, 2015 (referred to after this as the Mandatory

Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for all Airbus Model A318, A319, A320, and A321 series airplanes. The MCAI states:

Several occurrences of in-flight loss of main landing gear (MLG) fixed and hinged fairings were reported. The majority of reported events occurred following scheduled maintenance activities. One result of the investigation was that a discrepancy between the drawing and the maintenance manuals was discovered. The maintenance documents were corrected to prevent mis-rigging of the MLG fixed and hinged fairings, which could induce fatigue cracking.

Airbus issued Service Bulletin (SB) A320-52-1083, providing instructions for a one-time inspection of the MLG fixed fairing composite insert and the surrounding area, replacement of the adjustment studs at the lower forward position and adjustment to the new clearance tolerances. That SB was replaced by Airbus SB A320-52-1100 (mod 27716) introducing a re-designed location stud, rod end and location plate at the forward upper and lower leg fixed-fairing positions. Subsequently, reports were received of post-mod 27716 / post-SB A320-52-1100 MLG fixed fairing assemblies with corrosion, which could also induce cracking.

This condition, if not detected and corrected, could lead to further cases of in-flight detachment of a MLG fixed fairing, possibly resulting in injury to persons on the ground and/or damage to the aeroplane.

To address this potential unsafe condition, EASA issued AD 2014-0096

[http://ad.easa.europa.eu/blob/easa_ad_2014_0096_superse ded.pdf/AD_2014-0096_1] to require [for certain airplanes] repetitive detailed inspections (DET) of the MLG fixed fairings, and, depending on findings, accomplishment of applicable corrective actions. That [EASA] AD also prohibited installation of certain MLG fixed fairing rod end assemblies and studs as replacement parts on aeroplanes incorporating Airbus mod 27716 in production, or modified in accordance with Airbus SB A320-52-1100 (any revision) in service.

Since EASA AD 2014-0096 was issued, Airbus developed an alternative inspection programme to meet the AD requirements. In addition, a terminating action (mod 155648) was developed, which is to be made available for in service aeroplanes through Airbus SB A320-52-1165.

For the reasons described above, this [EASA] AD retains the requirements of EASA AD 2014-0096, which is superseded, and adds an optional terminating action for the repetitive inspections. For post-mod aeroplanes, i.e. incorporating Airbus mod 155648 in production, or modified by Airbus SB A320-52-1165 in service, the only remaining requirement is to ensure that pre-mod components are no longer installed.

Prompted by these developments, EASA issued AD * * *, retaining the requirements of EASA AD 2014-0096, which was superseded, and adding an optional terminating action for the repetitive inspections. For post-mod aeroplanes, i.e. incorporating Airbus mod 155648 in production, or modified by Airbus SB A320-52-1165 in service, the only remaining requirement is to ensure that pre-mod components are no longer installed.

Since that [EASA] AD was issued, it was discovered that a certain plate support, Part Number (P/N) D5285600620000 as listed in Table 3 of the [EASA] AD, remains part of the post SB A320-52-1165 configuration and is therefore not affected by any prohibition of installation – paragraph (11) of the [EASA] AD. In addition, an error was detected in Table 1 of the [EASA] AD (missing P/N plate support) and paragraph (9) was found to be incorrectly worded.

For the reasons described above, this [EASA] AD is revised to introduce the necessary corrections.

Required actions also include, for airplanes in Airbus pre-Airbus Modification 27716 and pre-Airbus Service Bulletin A320-52-1100 configuration on which certain components have been installed, repetitive replacements of the fixed fairing upper and lower attachment study of both the LH and RH MLG. An optional terminating

modification also is provided for the repetitive replacements of the fixed fairing upper and lower attachment studs.

The optional terminating modification includes a resonance frequency inspection for debonding of the composite insert and delamination of the honeycomb area around the insert, and applicable corrective actions if necessary; and installation of new studs, rod ends, and location plates at the forward upper and lower leg fixed-fairing positions.

An additional optional terminating modification, for airplanes in pre-Airbus Modification 27716 and pre-Airbus Service Bulletin A320-52-1100 configuration, includes installation of a locking device, new studs, rod ends, and location plates at the forward upper and lower leg fixed-fairing positions.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2015-2458.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Revise Applicability in SUMMARY Section of the NPRM

United Airlines (UAL) requested that we revise the SUMMARY section of the NPRM to include Model A320 series airplanes.

We agree with the commenter's request. The published version of the NPRM SUMMARY inadvertently did not include Model A320 series airplanes. We have revised the SUMMARY section of this final rule accordingly.

Request to Revise Inspection Findings

UAL requested that we revise paragraphs (i), (k), and (m) of the proposed AD, by replacing the term "fatigue" with "deformation." UAL stated that the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, dated February 4, 2014, do not provide any specific method for doing a detailed inspection for indications of fatigue.

We disagree with the commenter's request to replace the term "fatigue" with "deformation." The intent of the Airbus service information and the FAA AD is to inspect for "fatigue cracking." For clarity, we have revised the SUMMARY and Discussion sections of this final rule, and paragraphs (i), (k), and (m) of this AD, by changing "fatigue" to "fatigue cracking."

Request to Use Revised Service Information

American Airlines (AAL) requested that we revise the proposed AD to reference Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015.

We agree with the commenter's request. No additional work is required by this revision of the service information. We have revised paragraphs (g), (i), (k), (l), and (m) of this AD to reference Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015. We have added credit for the actions required by paragraphs (g), (i), (k), (l), and (m) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-52-1163, dated February 4, 2014.

Request to Revise Re-identification of Fairing Part Number

AAL requested that we revise paragraphs (k), (l), (m), and (n) of the proposed AD to remove the re-identification of the fairing part number specified in Airbus Service Bulletin A320-52-1165, including Appendix 01, dated November 3, 2014, on airplanes that are pre-Airbus Modification 27716 and post-modification Airbus Service Bulletin A320-52-1100. AAL stated that a discrepancy in Airbus Service Bulletin A320-52-1165, including Appendix 01, dated November 3, 2014, makes it impossible to re-identify the fairing part number.

We agree with AAL that Airbus Service Bulletin A320-52-1165, including Appendix 01, dated November 3, 2014, has a discrepancy in the re-identification of the fairing part number. Airbus has revised the instructions for re-identification of the fairing part number for pre-Airbus Modification 27716 and post-modification Airbus Service Bulletin A320-52-1100 configuration airplanes in Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015. We have revised paragraphs (k), (l)(1), (m), and (n)(3) of this AD to reference Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015, as the appropriate source of service information for the applicable actions in those paragraphs.

Request to Specify Allowable Corrosion Limits

AAL requested that we specify the allowable corrosion limits that would allow release of the airplane into service with corroded stud assemblies. AAL stated that paragraph (1)(2) of the proposed AD allows an operator to release an airplane into service with corrosion on the stud assembly, without accomplishing any corrective action at the time of the corrosion findings, provided that the stud assembly is not loose.

We disagree with the commenter's request to specify corrosion limits in the AD. The corrosion level(s) and subsequent action(s) in general are defined in the AAL corrosion prevention and corrosion control maintenance program (CPCP). For this AD, operators have an option to either replace the affected stud assemblies (that have corrosion but the corroded stud is not loose) before further flight as specified in paragraph (l)(1) of this AD or perform repetitive inspections as specified in paragraph (l)(2) of this AD until corrective actions are done as specified in paragraph (m) of this AD. We have not changed this AD in this regard.

Request to Add Paragraph to Specify No Reporting is Required

UAL requested that we add a paragraph in the proposed AD, to remove the Airbus Service Bulletin A320-52-1163, dated February 4, 2014, requirement to report all inspection findings to Airbus.

We agree with the commenter's request. We have added new paragraph (q) to this AD, which states that although Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015, specifies to submit certain information to the manufacturer, and specifies that action as "RC" (Required for Compliance), this AD does not include that requirement. We have redesignated subsequent paragraphs

accordingly. Although not required to do so by this AD, we recommend that operators submit such information based on the Airbus service information request. This information may be beneficial to Airbus for product improvements.

Request to Clarify Repetitive Inspection Interval

AAL requested clarification of the repetitive inspection interval in paragraph (l)(2) of the proposed AD. AAL stated that, if Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015, was referenced in this AD, this service information includes an option for a repetitive inspection interval of 750 flight cycles.

We agree to clarify the repetitive inspection interval in paragraph (1)(2) of this AD. The 4-month repetitive inspection interval specified in paragraph (1)(2) of this AD has precedence over the 750-flight-cycle interval specified in Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015. We have not changed this AD in this regard.

Request to Revise Corrective Actions

Delta Airlines (DAL) requested that we revise paragraph (k) of the proposed AD to require the replacement of only the affected assembly and not the upper and lower fixed fairing forward attachment assemblies of the LH and RH MLG because of one finding on an affected assembly. DAL stated that paragraph (k) of the proposed AD places an undue burden on operators by having to replace airworthy parts because one of the affected parts was found with a finding of corrosion, wear, fatigue cracking, or loose studs.

We agree with the commenter's request. We agree with DAL that only parts with indication of corrosion, wear, fatigue cracking, or loose studs should be replaced. We have revised paragraph (k) of this AD to require replacing discrepant upper and lower fixed fairing forward attachment stud assemblies of the LH and RH MLG.

Request to Revise Exceptions to AD Actions

DAL requested that we revise paragraph (o) of the proposed AD to indicate that paragraphs (g) through (n) of the proposed AD are not applicable to post-Airbus Modification 155648 configuration airplanes. DAL stated that paragraph (o) of the proposed AD provides relief from the requirements of paragraphs (g) and (i) of the proposed AD, but related paragraphs (h), (j), (k), (l), and (n) of the proposed AD are not included in the relief.

We agree with the commenter that the intent of this AD is to not require paragraphs (g) through (n) of this AD if conditions stated in paragraph (o) of this AD are met. The requirements of paragraphs (k), (l), and (m) of this AD are conditional and will not apply to operators that are not required to do paragraphs (g) and (i) of this AD.

Paragraph (n) of this AD is an explanation of terminating actions. We have clarified paragraphs (h) and (j) of this AD to refer to the exempt airplanes.

Request to Delete Paragraph (p)(1) of the Proposed AD, and Change Wording in Paragraphs (p)(1) through (p)(4) of the Proposed AD

DAL requested that we delete paragraph (p)(1) of the proposed AD. DAL stated that paragraph (p)(1) of the proposed AD applies to pre-Airbus Modification 27716 and pre-Airbus Service Bulletin A320-52-1100 configuration airplanes, but provides a requirement for post-Airbus Modification 27716 or post-Airbus Service Bulletin A320-

52-1100 configuration airplanes, which is redundant with the requirements of paragraph (p)(2) of the proposed AD. Delta also requested that we replace the word "and" in paragraphs (p)(1) through (p)(4) of the proposed AD with "or" to clarify the requirement and be consistent with the wording used in paragraph (i) of the proposed AD.

We partially agree with the commenter's requests. We agree with DAL to revise paragraphs (p)(1) through (p)(4) of this AD to replace "and" with "or." We do not agree with deleting paragraph (p)(1) of this AD. Paragraph (p)(1) of this AD is applicable for airplanes in pre-Airbus Modification 27716 or pre-Airbus Service Bulletin A320-52-1100 configuration, and the parts prohibition is effective after doing the actions provided in paragraph (n)(2) of this AD. Paragraph (p)(2) of this AD is applicable for airplanes in post-Airbus Modification 27716 or post-Airbus Service Bulletin A320-52-1100 configuration, and the parts prohibition is effective as of the effective date of this AD. Therefore, paragraphs (p)(1) and (p)(2) of this AD are not redundant. We have not changed this AD in this regard.

Request to Delete Paragraph (p)(3) of the Proposed AD

DAL requested that we delete paragraph (p)(3) of the proposed AD. DAL stated that paragraph (p)(3) of the proposed AD applies to pre-Airbus Modification 155648 and pre-Airbus Service Bulletin A320-52-1165 configuration airplanes, but provides a requirement for post-Airbus Modification 155648 or post-Airbus Service Bulletin A320-52-1165, which is redundant with the requirements of paragraph (p)(4) of the proposed AD.

We do not agree with the commenter's request. Paragraph (p)(3) of this AD is applicable for airplanes which have not been modified to post-Airbus Modification 155648 or post-Airbus Service Bulletin A320-52-1165 configuration. Paragraph (p)(4) of this AD is applicable for airplanes that are in post-Airbus Modification 155648 or post-Airbus Service Bulletin A320-52-1165 configuration. We have not changed this AD in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information under 1 CFR part 51

We reviewed the following service information:

Airbus Service Bulletin A320-52-1100, Revision 01, dated March 12, 1999.
 This service information describes procedures for modification of the airplane to post Airbus Modification 27716 configuration (by replacing the location stud, rod end, and

location plate at the forward upper and lower leg fixed-fairing positions of the MLG door assemblies). The modification includes a resonance frequency inspection for debonding of the composite insert and delamination of the honeycomb area around the insert, and applicable corrective actions. Corrective actions include repairing the insert. The actions in this service information are an optional terminating modification.

- Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015. This service information describes procedures for inspection of the fixed fairing forward attachments of the MLG door assemblies, and replacement of the fixed fairing upper and lower attachment study of the LH and RH MLG door assemblies.
- Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015. This service information describes procedures for replacing the fairing attachment stud assemblies of the MLG door assembly with new assemblies. The actions in this service information are an optional terminating modification.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Explanation of "RC" (Required for Compliance) (RC) Procedures and Tests in Service Information

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (ARC), to enhance the AD system.

One enhancement was a new process for annotating which procedures and tests in the service information are required for compliance with an AD. Differentiating these procedures and tests from other tasks in the service information is expected to improve an

owner's/operator's understanding of crucial AD requirements and helps to provide consistent judgment in AD compliance. The procedures and tests identified as RC in any service information have a direct effect on detecting, preventing, resolving, or eliminating an identified unsafe condition.

As specified in a NOTE under the Accomplishment Instructions of the specified service information, procedures and tests that are identified as RC in any service information must be done to comply with the AD. However, procedures and tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an alternative method of compliance (AMOC), provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC will require approval of an AMOC.

Costs of Compliance

We estimate that this AD affects 851 airplanes of U.S. registry.

We also estimate that it will take about 18 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$4,110 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$4,799,640, or \$5,640 per product.

We estimate that the optional terminating modification would take about 18 work-hours and require parts costing \$4,110, for a cost of \$5,640 per product.

In addition, we estimate that any necessary follow-on actions would take about 18 work-hours and require parts costing \$4,110, for a cost of \$5,640 per product. We have no way of determining the number of aircraft that might need these actions.

According to the manufacturer, some of the costs of this AD might be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- Is not a "significant rule" under the DOT Regulatory Policies and Procedures
 (44 FR 11034, February 26, 1979);
 - 3. Will not affect intrastate aviation in Alaska; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2015-2458; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2016-07-23 Airbus: Amendment 39-18468. Docket No. FAA-2015-2458; Directorate Identifier 2014-NM-122-AD.

(a) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the Airbus airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

- (1) Airbus Model A318-111, -112, -121, and -122 airplanes.
- (2) Airbus Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.
- (3) Airbus Model A320-211, -212, -214, -231, -232, and -233 airplanes.
- (4) Airbus Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 52, Doors.

(e) Reason

This AD was prompted by reports of in-flight loss of fixed and hinged main landing gear (MLG) fairings, and reports of post-modification MLG fixed fairing assemblies that have wear and corrosion. We are issuing this AD to prevent in-flight detachment of an MLG fixed fairing and consequent damage to the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Repetitive Replacements

For airplanes in pre-Airbus Modification 27716 and pre-Airbus Service Bulletin A320-52-1100 configuration, with any of the components installed that are identified in paragraphs (g)(1) through (g)(5) of this AD: At the applicable compliance time specified in paragraph (h) of this AD, replace fixed fairing upper and lower attachment studs of both left-hand (LH) and right-hand (RH) MLG, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015. Repeat the replacements thereafter at intervals not to exceed 6,500 flight cycles.

- (1) Plate support having part number (P/N) D5284024820000.
- (2) Plate support P/N D5284024820200.
- (3) Stud adjustment having P/N D5284024420000.
- (4) Rod end assembly (lower) having P/N D5284000500000.
- (5) Rod end assembly (upper) having P/N D5284000600000.

(h) Compliance Times for the Requirements of Paragraph (g) of this AD

For airplanes identified in paragraph (g) of this AD, except as provided by paragraph (o) of this AD: Do the initial replacement required by paragraph (g) of this AD at the latest of the times specified in paragraphs (h)(1) through (h)(4) of this AD.

- (1) Before the accumulation of 6,500 total flight cycles since the airplane's first flight.
- (2) Within 6,500 flight cycles since the last installation of a pre-Airbus Modification 27716 stud on the airplane.
 - (3) Within 1,500 flight cycles after the effective date of this AD.
 - (4) Within 8 months after the effective date of this AD.

(i) Repetitive Inspections

For airplanes in post-Airbus Modification 27716 or post-Airbus Service Bulletin A320-52-1100 configuration, with any of the components installed that are identified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD: At the applicable compliance time specified in paragraph (j) of this AD, do a detailed inspection of the LH and RH MLG forward stud assemblies of the fixed fairing door upper and lower forward attachments of both LH and RH MLG for indications of corrosion, wear, fatigue cracking, and loose studs, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015. Repeat the inspection thereafter at intervals not to exceed 12 months. Replacement of both LH and RH MLG forward stud assemblies on an airplane, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01,

including Appendix 01, dated June 22, 2015, extends the interval for the next detailed inspection to 72 months; and the inspection must be repeated thereafter at intervals not to exceed 12 months.

- (1) Stud adjustment having P/N D5285600720000.
- (2) Rod end assembly (lower) having P/N D5285600400000.
- (3) Rod end assembly (upper) having P/N D5285600500000.

(j) Compliance Times for the Requirements of Paragraph (i) of this AD

For airplanes identified in paragraph (i) of this AD, except as provided by paragraph (o) of this AD: Do the initial inspection required by paragraph (i) of this AD at the latest of the times specified in paragraphs (j)(1) through (j)(4) of this AD.

- (1) Before the accumulation of 72 months since the airplane's first flight.
- (2) Within 72 months since the last installation of a post-Airbus

 Modification 27716 assembly or since accomplishment of the actions specified in Airbus

 Service Bulletin A320-52-1100.
 - (3) Within 1,500 flight cycles after the effective date of this AD.
 - (4) Within 8 months after the effective date of this AD.

(k) Corrective Action

If any discrepancy (including any indication of corrosion, wear, fatigue cracking, or loose studs) of any MLG forward stud assembly is found during any inspection required by paragraph (i) of this AD, except as specified in paragraph (l) of this AD:

Before further flight, replace the discrepant upper and lower fixed fairing forward stud assemblies of the LH and RH MLG, in accordance with the Accomplishment Instructions

of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015; or Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015.

(1) Corrective Action or Repetitive Inspections for Certain Corrosion Findings

If any corrosion is found during any inspection required by paragraph (i) of this AD on any MLG fixed fairing forward stud assembly (upper, lower, LH or RH), but the corroded stud is not loose: Do the action specified in paragraph (l)(1) or (l)(2) of this AD.

- (1) Before further flight, replace the affected assembly, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015; or Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015.
- (2) Within 4 months after finding corrosion, and thereafter at intervals not to exceed 4 months, do a detailed inspection for indications of corrosion, wear, fatigue cracking, and loose studs of the forward stud assembly of the affected (LH or RH) MLG, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015.

(m) Corrective Action for Inspections Specified in Paragraph (l)(2) of this AD

If any indication of wear, fatigue cracking, or loose studs of any forward stud assembly is found during any inspection required by paragraph (l)(2) of this AD: Before further flight, replace the affected (LH or RH) MLG fixed fairing forward stud assembly,

in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015; or Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015.

(n) Terminating Action

- (1) Replacement of parts on an airplane, as required by paragraph (g), (k), (l)(1), or (m) of this AD, does not constitute terminating action for the repetitive inspections required by paragraph (i) of this AD, except as specified in paragraph (n)(3) of this AD.
- (2) The repetitive replacements required by paragraph (g) of this AD may be terminated by modification of the airplane to post-Airbus Modification 27716 configuration, including a resonance frequency inspection for debonding of the composite insert and delamination of the honeycomb area around the insert, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1100, Revision 01, dated March 12, 1999, provided all applicable corrective actions are done before further flight. Thereafter, refer to paragraph (i) of this AD to determine the compliance time for the next detailed inspection required by this AD.
- (3) Modification of an airplane, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02,

dated October 23, 2015, constitutes terminating action for actions required by paragraphs (g) through (m) of this AD for the airplane on which the modification is done.

(o) Exceptions to Certain AD Actions

An airplane on which Airbus Modification 155648 has been embodied in production is not affected by the requirements of paragraphs (g) and (i) of this AD, provided that no affected component, identified by part number as listed paragraphs (g)(1) through (g)(5) and (i)(1) through (i)(3) of this AD, has been installed on that airplane since first flight of the airplane.

(p) Parts Installation Prohibition

- (1) For airplanes in pre-Airbus Modification 27716 or pre-Airbus Service Bulletin A320-52-1100 configuration: No person may install a component identified in paragraphs (g)(1) through (g)(5) of this AD on any airplane after doing the actions provided in paragraph (n)(2) of this AD.
- (2) For airplanes in post-Airbus Modification 27716 or post Airbus Service Bulletin A320-52-1100 configuration: As of the effective date of this AD, no person may install a component identified in paragraphs (g)(1) through (g)(5) of this AD on any airplane.
- (3) For airplanes in pre-Airbus Modification 155648 or pre-Airbus Service Bulletin A320-52-1165 configuration: No person may install a component identified in paragraphs (g)(1) through (g)(5) and (i)(1) through (i)(3) of this AD on any airplane after doing the actions provided in paragraph (n)(3) of this AD.

(4) For airplanes in post-Airbus Modification 155648 or post-Airbus Service Bulletin A320-52-1165 configuration: As of the effective date of this AD, no person may install a component identified in (g)(1) through (g)(5) and (i)(1) through (i)(3) of this AD on any airplane.

(q) No Reporting Requirement

Although Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015, specifies to submit certain information to the manufacturer, and specifies that action as "RC" (Required for Compliance), this AD does not include that requirement.

(r) Credit for Previous Actions

- (1) This paragraph provides credit for optional actions provided by paragraph (n)(2) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-52-1100, dated December 7, 1998, which is not incorporated by reference in this AD.
- (2) This paragraph provides credit for the actions required by paragraphs (g), (i), (k), (l), and (m) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-52-1163, dated February 4, 2014, which is not incorporated by reference in this AD.

(s) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In

accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

- (2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.
- (3) Required for Compliance (RC): Except as specified in paragraph (q) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be

put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(t) Related Information

- (1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2015-0001R1, dated January 15, 2015, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2015-2458.
- (2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (u)(3) and (u)(4) of this AD.

(u) Material Incorporated by Reference

- (1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.
- (2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.
 - (i) Airbus Service Bulletin A320-52-1100, Revision 01, dated March 12, 1999.
- (ii) Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015.
- (iii) Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015.

(3) For service information identified in this AD, contact Airbus, Airworthiness

Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone

+33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com;

Internet http://www.airbus.com.

(4) You may view this service information at the FAA, Transport Airplane

Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of

this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the

National Archives and Records Administration (NARA). For information on the

availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Renton, Washington, on April 13, 2016.

Victor Wicklund, Acting Manager,

Transport Airplane Directorate,

Aircraft Certification Service.

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